INTERNATIONAL SEARCH REPORT

mational application No. PCT/KR2003/002668

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C03B 37/018, B29B 13/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 B29B, C03B, G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Patents and Applications for Invention since 1975

Korean Utility Models and Applications for Utility Models since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used) NPS, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| A | JP 13-089160 A(HOYA CORP) 03 APRIL 2001 see the whole document | 1 - 3, 6 |
| A | JP 12-169175 A(SUMITOMO ELECTRIC IND LTD) 20 JUNE 2000 see the whole document | 1 - 3, 6 |
| A | JP 03-242342 A(FURUKAWA ELECTRIC IND LTD) 29 OCTOBER 1991 see the whole document | 1 - 3, 6, 7, 12 |
| A | US 2002/157423 A1(Soufiane) 31 OCTOBER 2002 see the whole document | 1, 2 |
| A | US 6,161,398 A(Partus) 19 DECEMBER 2000 see the whole document | 1, 6, 7, 9, 12 |
| A | KR 1999-0040554 A(LG Cable Ltd.) 06 JUNE 1999 see the whole document | 1 - 3, 6 |
| | | |
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| Further documents are listed in the continuation of Box C. | X See patent family annex. | | |
|--|--|--|--|
| * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filling date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filling date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | |
| Date of the actual completion of the international search | Date of mailing of the international search report | | |
| 15 MARCH 2004 (15.03.2004) | 16 MARCH 2004 (16.03.2004) | | |
| Name and mailing address of the ISA/KR | Authorized officer | | |
| Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea | PARK, Hwan Don | | |

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No. PCT/KR2003/002668

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| JP 13-089160 A | 03.04.2001 | NONE | |
| JP 12-169175 A | 20.06.2000 | NONE | |
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| US 2002/157423 A1 | 31.10.2002 | NONE | |
| US 6161398 A | 19.12.2000 | JP 11320556 A2 EP 949212 A1 CN 1231380 A | 24.11.1999 13.10.1999 13.10.1999 |
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